The PCB Mark

BACKGROUND: **Polychlorinated biphenyls (PCBs) are a class of organic chemicals that were widely used in industrial applications due to their practical physical and chemical properties. Historical uses of PCBs include dielectric fluids (used in utility transformers, capacitors, etc.), hydraulic fluids, and other applications requiring stable, fire-retardant materials. Due to findings that PCBs may cause adverse health effects and due to their persistence and accumulation in the environment, the Toxic Substances Control Act (TSCA), enacted on October 11, 1976, banned the manufacture of PCBs after 1978 [Section 6(e)]. The first PCB regulations, promulgated at 40 *Code of Federal Regulations* (*CFR*) Part 761, were finalized on February 17, 1978, and were most recently amended on June 29, 1998 [63 *Federal Register* (FR) 35384]. These PCB regulations include requirements specifying disposal methods and marking (i.e., labeling) procedures, and controlling PCB use. The requirements outlined at 40 *CFR* Parts 761.40 through 761.45 specify marking requirements for most PCB Items (i.e., any PCB Article, PCB Container, PCB Article Container, or PCB Equipment that contains PCBs). Most PCB Items require "PCB marks," a descriptive name, instructions, cautions, or other information applied to PCB Items or other objects subject to these regulations. The marking regulations include requirements for PCB marks on PCB Items, storage areas, and temporary storage areas.**

To assist the Department of Energy (DOE) in its efforts to comply with the TSCA statute and implementing regulations, the Office of Environmental Policy and Guidance has prepared the document *Guidance Booklet on the Storage and Disposal of PCB Waste*. This Information Brief supplements the PCB guidance document by responding to common questions concerning marking requirements for PCBs. It is one of a series of Information Briefs pertinent to PCB management issues.

STATUTE: **Toxic Substances Control Act of 1976 (TSCA)**

REGULATION: **40 *CFR* Part 761**

REFERENCES:

1. ***Guidance Booklet on the Storage and Disposal of PCB Waste*, DOE Office of Environmental Policy and Guidance, RCRA/CERCLA Division (EH-413), DOE/EH-413-9914, November 1999.]**
2. ***PCB Storage Requirements*, EH-413 TSCA Information Brief, EH-413-0006/0702, Office of Environmental Policy and Guidance, RCRA/CERCLA Division, July 2002.**
3. ***Disposal Requirements for PCB Waste*, EH-413 TSCA Information Brief, EH-413-__, Office of Environmental Policy and Guidance, RCRA/CERCLA Division, XXXX 1999.**

What is a PCB mark and what does it look like?

The PCB mark (see Figure 1) is a label with black striping around the border that contains certain information specified in the regulations that apply to PCB Items (i.e., any manufactured item containing or contaminated with PCBs). There are two marking formats, "Mark M_L" and "Mark M_S"; the only difference between the two is the size of the mark. PCB Mark M_L is a 6" x 6" square; PCB Mark M_S is a 1" x 2" rectangle. The text of the mark includes the warning "Caution Contains PCBs," instructions in case of accident or spill, and the telephone number of the

National Response Center. The PCB mark must have either a yellow or white background.

Where is the PCB mark required to be attached?

The mark must be placed in a prominent position on the exterior of a PCB Item so that it can be easily read. The mark must also be sufficiently durable to equal or exceed the life of the PCB Item. If Mark M_L is too large for the item, it may be proportionally reduced in size to a minimum of 2" x 2". If a mark smaller than 2" x 2" is required, Mark M_S may be used. If Mark M_S is too large, it may be reduced in size proportionally to a minimum size of 1 cm x 2 cm. Both marks are commercially available from vendors of industrial placarding and health and safety supplies.

What types of PCB Articles and PCB Equipment require marking?

Items requiring marking include:

- PCB Transformers (i.e., transformers with >500 ppm of PCBs),
- PCB Large High voltage capacitors,
- PCB Large Low voltage capacitors,
- PCB Equipment (containing any of the three articles listed above),
- voltage regulators with ≥ 3 lbs of ≥ 500 ppm of PCBs,
- electric motors with coolants ≥ 50 ppm of PCBs,
- hydraulic systems with hydraulic fluids ≥ 50 ppm of PCBs, and
- heat transfer systems with fluid ≥ 50 ppm of PCBs.

What types of PCB Containers require marking?

Containers with ≥50 ppm of PCBs, liquid or non-liquid, must be marked (e.g., containers with PCB remediation waste or PCB bulk product waste, either of which has ≥50 ppm of PCBs).

What types of PCB Article Containers require marking?

A PCB Article Container must be marked if it contains a PCB Article, PCB Equipment, or PCB Container that must be marked.

What are the marking requirements for areas where PCB Articles are in use or operating?

There are two types of locations where PCB Articles in use or operating must be marked. One is the access (e.g., machine room door, vault, highway, fence) to where a PCB Transformer or a voltage regulator with ≥ 3 lbs of ≥ 500 ppm of PCBs is located. The other is a protected location for an individual PCB Large (Low or High Voltage) Capacitor. A protected location may be a pole, structure, or fence. In such cases the individual capacitor does not require marking but (1) the protected location must be marked, (2) a record identifying the PCB Large Capacitors must be kept at the protected location, and (3) the individual capacitor(s) must be marked when removed from the protected location.

If there is more than one door or access leading to the location inside a building of a PCB Transformer or voltage regulator with ≥ 3 lbs. of ≥ 500 ppm of PCBs, which door or access should be marked?

All doors or accesses leading from the outermost door to the door immediately accessing the PCB Transformer or voltage regulator location should be marked. Although the regulations do not require that all these doors be marked, it is a best management practice to do so. The reason is that marking all doors from the outermost door leading to the innermost door immediately accessing the PCB Transformer or voltage regulator assists fire fighters in identifying the location of the PCB Transformer or voltage regulator.

What PCB storage locations are required to be marked?

Only areas storing PCBs and PCB Items for disposal are required to be marked.

Are there any other locations that require marking?

There are two other locations, not mentioned in 40 *CFR* Part 761 Subpart C, that require marking. First, is the marking of, or over, an encapsulated area or at a barrier to a porous surface that was contaminated with ≥ 50 ppm of liquid PCBs and cleaned up in accordance with 40 *CFR* Part 761.30(p). Second, is the marking of fenced PCB remediation waste sites cleaned up to > 25 ppm and ≤ 50 ppm of PCBs in accordance with 40 *CFR* Part 761.61(a)(4)(I)(B).

What are the marking requirements for vehicles transporting PCBs?

Vehicles transporting either (1) > 45 kg (99.4 lbs) of **liquid** PCBs with a concentration ≥ 50 ppm of PCBs or (2) one or more PCB Transformers must be marked on each end and each side of the vehicle.

What is the significance of EPA adding 40 *CFR* Part 761.40(k)(2) about marking PCB Transformers and PCB Large (Low or High Voltage) Capacitors?

40 *CFR* Part 761.40(k)(2) requires marking of all equipment containing a PCB Transformer or PCB Large (Low or High Voltage) Capacitor that was not marked at the time of manufacture, distribution in commerce, or removal from use. This means that if the mark falls off or otherwise disappears from a PCB Transformer or PCB Large (Low or High Voltage) Capacitor while in use, the owner/operator is responsible for making sure the equipment is remarked. Prior to this amendment, the responsibility for marking had been put solely on the manufacturer or retailer, and no responsibility for maintaining the mark had been placed on the owner/operator of the equipment.

Are there any other labeling requirements?

Yes. In addition to applying the PCB mark to the required PCB and PCB Items, PCB wastes being stored prior to disposal must also be labeled with a notation indicating the date that the item was removed from service for disposal. If the wastes in storage include drums of PCB-contaminated soil from a remediation activity, the "date removed from service for disposal" would be the date on which the soil was excavated and placed into drums. If the wastes are liquid wastes (e.g., solvents used for flushing or decontaminating PCB Items), the "date removed from service for disposal" is defined as the date that the first batch went into the drum. If PCBs in containers or PCB Items are contaminated with hazardous wastes regulated under the authority of the Resource Conservation and Recovery Act (RCRA), they must be marked in accordance with the applicable RCRA hazardous waste marking requirements, as defined in 40 *CFR* Part 262, as well as with the applicable TSCA marking requirements.

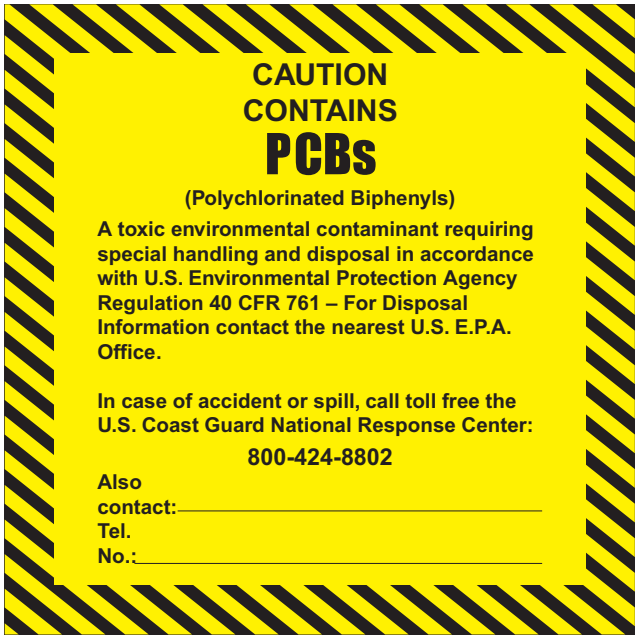

Figure 1 - Mark M_L

Questions of policy or questions requiring policy decisions will not be dealt within EH-413 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subect material covered in this Infor mation Brief to Beverly Whitehead, RCRA/ CERCLA Division, EH-413, (202) 586-6073, or beverly.whitehead@eh.doe.gov.